



[4910-13-P]

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2019-0702; Product Identifier 2019-NM-118-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Bombardier, Inc., Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for certain Bombardier, Inc., Model DHC-8-400 series airplanes. This proposed AD was prompted by a report of a quality escape in the manufacturing of the advanced pneumatic detector (APD) switches, and the presence of contamination on the switch contact pin. This proposed AD would require identification and testing, and reidentification or replacement if necessary, of affected APDs. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact De Havilland Aircraft of Canada Ltd., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email [thd@dehavilland.com](mailto:thd@dehavilland.com); Internet: <https://dehavilland.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0702; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Thomas Niczky, Aerospace Engineer, Avionics and Electrical Systems Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7347; fax 516-794-5531; email [9-avs-nyaco-cos@faa.gov](mailto:9-avs-nyaco-cos@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2019-0702; Product Identifier 2019-NM-118-AD” at the beginning of your comments. The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. The FAA will consider all comments received by the closing date and may amend this NPRM because of those comments.

The FAA will post all comments, without change, to <http://www.regulations.gov>, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact the agency receives about this NPRM.

### **Discussion**

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian AD CF-2019-13, dated April 4, 2019 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc., Model DHC-8-400, -401, and -402 airplanes. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0702.

This proposed AD was prompted by a report of a quality escape in the manufacturing of advanced pneumatic detector (APD) switches, and the presence of contamination on the switch contact pin. The FAA is proposing this AD to address such contamination that could insulate the contact pin from the diaphragm and result in

undetected or late detection of a fire. See the MCAI for additional background information.

#### **Related Service Information under 1 CFR part 51**

Bombardier has issued Service Bulletin 84-26-19, Revision ‘A,’ dated February 11, 2019. This service information describes procedures for identification and testing, and reidentification or replacement if necessary, of affected APDs.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

#### **FAA’s Determination**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition described in the MCAI and service information referenced above. The FAA is proposing this AD because the FAA evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop on other products of the same type design.

#### **Proposed Requirements of this NPRM**

This proposed AD would require accomplishing the actions specified in the service information described previously. This proposed AD would also require returning failed APDs to the manufacturer.

## Costs of Compliance

The FAA estimates that this proposed AD affects 65 airplanes of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD:

### Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Up to 10 work-hours X \$85 per hour = Up to \$850	\$0	Up to \$850	Up to \$55,250

The FAA estimates the following costs to do any necessary on-condition actions that would be required based on the results of any required actions. The FAA has no way of determining the number of aircraft that might need this on-condition actions:

### Estimated costs of on-condition actions\*

Labor cost	Parts cost	Cost per product
Up to 124 work-hours X \$85 per hour = Up to \$10,540	Up to \$51,076	Up to \$61,616

\*The FAA has received no definitive data to provide cost estimates for the on-condition return of parts.

According to the manufacturer, some or all of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. The FAA does not control warranty coverage for affected individuals. As a result, The FAA has included all known costs in the cost estimate.

## Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that

collection of information displays a current valid OMB control number. The control number for the collection of information required by this NPRM is 2120-0056. The paperwork cost associated with this NPRM has been detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting associated with this NPRM is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at 800 Independence Ave., SW, Washington, DC 20591, ATTN: Information Collection Clearance Officer, AES-200.

#### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This proposed AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order

8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

### **Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

**§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**Bombardier, Inc.:** Docket No. FAA-2019-0702; Product Identifier 2019-NM-118-AD.

**(a) Comments Due Date**

The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Bombardier, Inc., Model DHC-8-400, -401, and -402 airplanes, certificated in any category, serial numbers 4001 and 4003 and subsequent.

**(d) Subject**

Air Transport Association (ATA) of America Code 26, Fire protection.

**(e) Reason**

This AD was prompted by a report of a quality escape in the manufacturing of advanced pneumatic detector (APD) switches, and the presence of contamination on the switch contact pin. The FAA is issuing this AD to address such contamination that could insulate the contact pin from the diaphragm and result in undetected or late detection of a fire.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.



**(g) Affected APDs**

For purposes of this AD, an affected APD is manufactured by Kidde (UTAS) and has a part number and serial number identified in paragraphs (g)(1) through (10) of this AD.

- (1) Part number 10-1096 (all serial numbers).
- (2) Part number 10-1096-01 (all serial numbers).
- (3) Part number 10-1096-02 (serial numbers before AEM9907).
- (4) Part number 10-1097 (all serial numbers).
- (5) Part number 10-1097-01 (all serial numbers).
- (6) Part number 10-1097-02 (serial numbers before 17-0005).
- (7) Part number 10-1098 (all serial numbers).
- (8) Part number 10-1098-01 (serial numbers before 17-0110).
- (9) Part number 10-1099 (all serial numbers).
- (10) Part number 10-1099-01 (serial numbers before 17-0009).

**(h) APD Identification and Test**

Within 8,000 flight hours or 48 months, whichever occurs first after the effective date of this AD: Do the applicable actions specified in paragraph (h)(1) and (2) of this AD, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-26-19, Revision 'A,' dated February 11, 2019.

(1) Determine whether any affected APD is installed on the engine nacelles or auxiliary power unit (APU) compartment.

(2) Do the on-aircraft test of all affected APDs.

(i) For any APD that passes the test: Before further flight, reidentify the APD.

(ii) For any APD that fails the test, before further flight, replace the APD with an unaffected APD, or one provided by Kidde that has been successfully tested and reidentified.

**(i) Return of Failed APDs**

For any APD that fails the test specified in paragraph (h)(2) of this AD: Return the APD at the applicable time specified in paragraph (i)(1) or (2) of this AD to Kidde Aerospace & Defense, 4200 Airport Dr NW, Building B, Wilson, NC 27896-8630, Attention Keith Fail, Supervisor, Service Center.

(1) If the test was done on or after the effective date of this AD: Send the APD within 30 days after completion of the test.

(2) If the test was done before the effective date of this AD: Send the APD within 30 days after the effective date of this AD.

**(j) Parts Installation Limitation**

As of the effective date of this AD, no person may install an affected APD, unless the APD has been successfully tested and reidentified in accordance with Bombardier Service Bulletin 84-26-19, Revision 'A,' dated February 11, 2019.

**(k) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraph (h) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 84-26-19, dated October 24, 2018.

## **(I) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(3) *Reporting Requirements*: A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 1 hour per

response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

**(m) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2019-13, dated April 4, 2019, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0702.

(2) For more information about this AD, contact Thomas Niczky, Aerospace Engineer, Avionics and Electrical Systems Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7347; fax 516-794-5531; email [9-avs-nyaco-cos@faa.gov](mailto:9-avs-nyaco-cos@faa.gov).

(3) For service information identified in this AD, contact De Havilland Aircraft of Canada Ltd., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email [thd@dehavilland.com](mailto:thd@dehavilland.com); Internet: <https://dehavilland.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued in Des Moines, Washington, on September 24, 2019.

Michael Kaszycki,  
Acting Director,  
System Oversight Division,  
Aircraft Certification Service.

[FR Doc. 2019-21352 Filed: 10/3/2019 8:45 am; Publication Date: 10/4/2019]